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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,022	09/26/2003	Neal E. Ulen	P16919	7687
28062	7590	10/25/2005	EXAMINER	
BUCKLEY, MASCHOFF, TALWALKAR LLC			PAPE, ZACHARY	
5 ELM STREET			ART UNIT	
NEW CANAAN, CT 06840			PAPER NUMBER	
			2835	

DATE MAILED: 10/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,022	<b>Applicant(s)</b> ULEN ET AL.	
	<b>Examiner</b> Zachary M. Pape	<b>Art Unit</b> 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-7,11-14 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,11-14 and 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Response to Amendment***

The following detailed action is in response to the correspondence filed 8/10/2005.

The examiner has withdrawn the objection to the abstract (specification) in light of the newly amended abstract provided with the correspondence.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-2, 4-7, 19-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1 and 19 both recite, "said circuit board is not sandwiched between said chassis standoffs and said heat sink standoffs" which does not have any basis in the disclosure (See MPEP 2173.05(i)). The applicant fails to disclose in the specification, for example, that the circuit board specifically is not sandwiched between the chassis and heat sink standoffs. Rather the applicant states, "The boss (62) of the spring (18) is sandwiched between the chassis standoff (16) and the heat sink standoff (38). The standoffs 16, 38 with the boss 62 sandwiched therebetween.." (See

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Specification Page 9, Lines 26-29). Therefore there is no positive recitation in the specification for the negative limitation in the claims 1 and 19.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 4-7, 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 19 the applicant states, "wherein said circuit board holes are shaped and sized so that said circuit board is not sandwiched between said chassis standoffs and heat sink standoffs" but fails to define the appropriate structural relationship that allows the circuit board to not be sandwiched between the chassis standoffs and the heat sink standoffs. For example the holes are recited as, the appropriate, "shape and size" but the shape and size are not defined therefore rendering claims 1 and 19 indefinite.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 6,097,601).

With respect to claim 11, Lee teaches a spring (Fig 3, 20) comprising: a perimeter section including a plurality of sides around an open space a first spring finger (24) extending inwardly and upwardly in an inclined fashion from a first one of the sides; a second spring finger (Also 24) extending inwardly and upwardly in an inclined fashion from a second one of the sides that is opposite to the first one of the sides; four board attach fingers (25) each extending substantially vertically upwardly from the perimeter section, a first one of the board attach fingers located at a first end of the first one of the sides a second one of the board attach fingers located at a second end of the first one of the sides, a third one of the board attach fingers located at a first end of the second one of the sides, and a fourth one of the board attach fingers located at a second end of the second one of the sides, and four bosses (22) formed in the perimeter section each of the bosses located so as to have a respective one of the board attach fingers (25) extending upwardly therefrom: wherein the perimeter section is substantially octagonal and includes a pair of long sides that are positioned opposite to each other and that are longer than the sides from which the first and second spring fingers extend, the perimeter section further including four short sides that are shorter than the sides from which the first and second spring fingers extend, each of the short sides joining an end of one of the long sides to an end of one of the sides from which the first and second spring fingers extend; said long sides (See present office action Figs 1 and 2 below).

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Lee fails to teach that the short sides and said sides from which the first and second spring fingers extend together forming a closed octagonal loop, however it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the two spring fingers (24) on each side respectively to close the gap between the two springs forming a closed loop and thus increasing the rigidity of the spring fingers.

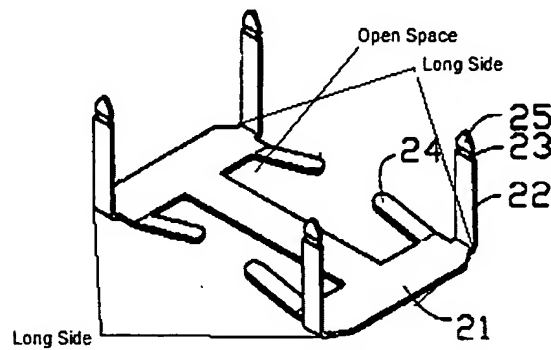


Fig 1

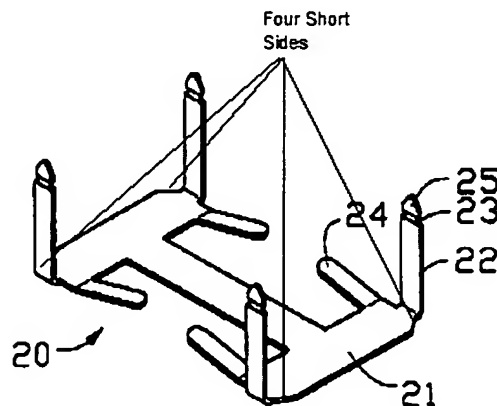


Fig 2

With respect to claim 12, Lee fails to teach that the spring (20) is made of stainless steel. It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the spring of stainless steel, since it has been held to be within the general skill of a worker in the art to select a known material (Such as stainless steel for use as a spring) on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Stainless steel is a durable material which would prevent rusting of the spring, which in turn reduces the likelihood of damage to the circuit board and other components, and further reduces the need to replace the damaged parts (Spring, circuit board, etc.).

With respect to claim 13, Lee further teaches that the spring (20) is formed as a single unitary piece of material (As illustrated in Fig 3).

**Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and further in view of Mann (US 6,404,634).**

Lee teaches the claim limitations of claim 11 above, but fails to teach the use of a pair of tape segments mounted on the first and second spring fingers. Mann teaches the use of thermal tape (13) for mounting in a heat-dissipating device (Column 4, Lines 40+). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the tape of Mann with the spring of Lee to provide a means for facilitating heat transfer from the circuit board to the spring fingers (24) and finally to the surrounding air (Mann, Column 4, 36-41). Providing a facilitating means

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such as tape will allow the component, and circuit board to cool more efficiently as the tape allows the spring finger to have more surface area in contact with the circuit board.

### ***Response to Arguments***

5. Applicant's arguments filed 8/10/2005 have been fully considered but they are not persuasive.

With respect to applicants' remarks that the, "closed loop configuration is not suggested by either element 10 of the Chen reference or element 20 of the Lee reference nor from their combination", the examiner respectfully agrees, however, as set forth in the rejection to claim 11 above, modifying the spring to have a closed loop is an obvious modification to the existing design (Of Lee) since connecting the spring fingers (24) would add rigidity to the spring.

Applicants remarks regarding claims 1 and 19 have been noted however the examiner is unable to consider such remarks since the claims have numerous 112 issues in their present form as addressed in this detailed action.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

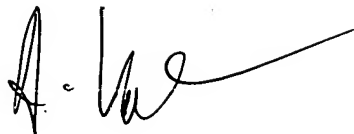


**ANATOLY VORTMAN**  
**PRIMARY EXAMINER**

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ZMP

A handwritten signature in black ink, appearing to read 'A. Vortman', with a long horizontal stroke extending to the right.

**ANATOLY VORTMAN  
PRIMARY EXAMINER**